REMARKS

I. Title Amendment

In the office action response dated February 17, 2005, the assignee amended the application title to read:

--ACOUSTIC SIGNAL ENHANCEMENT SYSTEM--

The assignee respectfully requests confirmation that the database record for this patent application in the U.S. Patent Office had been updated to show the amended title.

II. 35 U.S.C. §102 - Graumann
Claims 2 and 14

Graumann receives compressed audio data from an external computer system on an audio channel 95 (Graumann, Col. 4, lines 11 - 13). When the compressed audio data includes speech, Graumann mutes a microphone in the local computer system. Half-duplex communication between the external computer system and the local computer system results. (Graumann, Col. 4, lines 30 - 37).

Thus, Graumann does not teach or suggest monitoring the acoustic signal <u>obtained from the microphone</u> to determine whether the microphone is already 'on' or 'off'. Instead, Graumann examines audio data received form an external system to determine whether a local microphone should be muted. Furthermore, Graumann does not teach or suggest continuously providing feedback about the on/off state of the microphone, including a report for a user display which indicates whether the microphone is currently 'on' or 'off'. Instead, the graphical user interface 240 simply accepts user recalibration commands. (Graumann, Col. 4, line 59 - Col. 5, line 5).

Accordingly, the assignee respectfully requests withdrawal of the §102 rejections of claims 2 and 14.

III. 35 U.S.C. §103 - Graumann and Park
Claims 1, 3, 7-8, and 17-18

The Graumann-Park system detects voice in an enhanced output signal. The Graumann-Park system obtains time samples of the microphone input, d(k), and time samples from a secondary correlated sensor, x(k). Analog to digital converters generate the time samples. (Park, Col. 4, lines 22-36, Figure 1). An adaptive filter processes d(k) and x(k) to remove noise to obtain an enhanced time series output signal y(k). (Park, Col. 4, lines 56-63). When the output data includes speech, the Graumann-Park mutes a microphone in the local computer system. Half-duplex communication between an external computer system and the local computer system results. (Graumann, Col. 4, lines 30 - 37).

Thus, the Graumann-Park system does not teach or suggest monitoring the acoustic signal <u>obtained from the microphone</u> to determine whether the microphone is already 'on' or 'off'. Instead, the Graumann-Park system examines an enhanced output signal to determine whether a local microphone should be muted. Furthermore, the Graumann-Park system does not teach or suggest continuously providing feedback about the on/off state of the microphone, including a user display report. Instead, the graphical user interface 240 in the Graumann-Park system accepts user recalibration commands. (Graumann, Col. 4, line 59 - Col. 5, line 5).
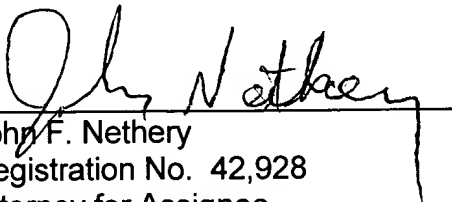
Furthermore, the Graumann-Park system does not teach or suggest calculating frequency domain parameters of the acoustic signal obtained from the microphone. Instead, the Graumann-Park system applies an adaptive filter 37 to an accelerometer input signal to remove noise. While any filter is characterized by frequency domain parameters, there is no teaching or suggestion to determine frequency domain parameters of the microphone signal itself to ascertain microphone placement information.

Accordingly, the assignee respectfully requests withdrawal of the §103 rejections of claims 1, 8, 17, and 18.

SUMMARY

Alone or in the asserted combinations, the cited references fail to teach or suggest the claimed subject matter. The Assignee therefore respectfully requests allowance of the claims, now pending for over five years. The Assignee invites the Examiner to call the undersigned attorney for the Assignee if the Examiner has any questions, comments, or concerns, or if a telephone conference would expedite examination of this application.

Respectfully submitted,

John F. Nethery
Registration No. 42,928
Attorney for Assignee

BRINKS HOFER GILSON & LIONE
P.O. BOX 10395
CHICAGO, ILLINOIS 60610
(312) 321-4200